

CLAIMS

- 5 1. A vehicular suspension arm, comprising:
- an upper sheet metal stamped component with a first outer face and a
first inner face, and comprising a first central web portion with two
opposite sides and first upstanding flange portions at said opposite
10 sides of said first web portion;
- a lower sheet metal stamped component with a second outer face and a
second inner face, and comprising a second central web portion with
two opposite sides and second upstanding flange portions at said
opposite sides of said second web portion;
- 15 said first and second inner faces adapted to contact each other along a
substantial portion of said first and second web portions;
- 20 said upper and lower stamped components adapted to be rigidly
attached to each other to create a structural I-beam section, wherein the
thickness of each upstanding flange portion is at least equal to the
combined thickness of the first and second web portions.
- 25 2. The vehicular suspension arm of Claim 1, wherein the upper and lower
stamped components are press-formed from sheet metal of uniform
thickness, and each upstanding flange portion comprises a fully
returned segment of said sheet metal, whereby the thickness of each
upstanding flange portion is at least double the thickness of each web
30 portion.

3. The vehicular suspension control arm of Claims 1 or 2, wherein the upper stamped component and lower stamped component are press-formed from sheet aluminum, sheet steel or similar sheet metal materials.
- 5
4. The vehicular suspension control arm of Claims 1, 2 or 3, wherein the upper stamped component and lower stamped component are rigidly attached to each other along said first and second inner faces in a back-to-back configuration using bolting, welding, bonding, riveting or similar fastening means.
- 10
5. The vehicular suspension control arm of Claims 1, 2 or 3, wherein the upper stamped component and lower stamped component are configured when placed into contact along said first and second inner faces to create a gap along a peripheral, joining edge suitable for facilitating a high quality welded joint which combines both butt and fillet configurations to join four material surfaces of the upper and lower components, and said upper and lower components are rigidly attached to each other by means of said welded joint.
- 15
- 20
6. The vehicular suspension control arm of Claims 1, 2 or 3, wherein the upper stamped component and lower stamped component are rigidly attached to each other along said first and second inner faces in a back-to-back configuration using projection welding across the respective first and second web portions.
- 25
7. The vehicular suspension control arm of Claims 1, 2, 3, 4, 5 or 6, wherein the upper stamped component is configured with a first extruded opening at a predetermined point in the first web portion, and the lower stamped component is similarly configured with a second extruded opening in the second web portion, so that the first and
- 30

second extruded openings align when the upper and lower stamped components are rigidly attached to each other to create a suitable structure to accept a ball joint of a spindle assembly.

- 5 8. The vehicular suspension control arm of Claims 2, 3, 4, 5, 6 or 7, wherein at least one discontinuity is introduced in the fully returned flanges to create a suitable structure to accept vehicle body attachment details.